




November 4, 2005

TO: Mr. Russell Hart, RPM
United States Environmental Protection Agency
Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

FROM: Mr. David Curnock, PM, SECOR International Incorporated 

RE: **MONTHLY PROGRESS REPORT/MEMORANDUM**
Area 9/10 Remedial Design
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

Copies: Mr. Thomas Turner, Regional Counsel, USEPA Region V
Mr. Scott Moyer, Hamilton Sundstrand/United Technologies Corporation
Ms. Kathleen McFadden, United Technologies Corporation
Mr. Thomas Williams, PM, IEPA
Mr. Terry Ayers, IEPA

CURRENT MONTH PROJECT ISSUES/STATUS: *(activities, meetings, deliverables, etc.)*
Activities conducted in October 2005 consisted of the continuation of Pre-Design Investigation and conceptual design activities. There two areas of focus at this time with respect to the overall Remedial Design are the former RCRA Outside Container Storage Area (OSA) and the area beneath the Hamilton Sundstrand (HS) Plant #1.

A work plan for source mass removal in the OSA was submitted to USEPA and IEPA in April. The work plan provided an analysis of the Pre-Design Investigation data collected to date, the rationale for the source removal effort, and a description of the planned activities. The technical work plan was conditionally approved by USEPA in a letter dated August 15, 2005. However, in order to implement the plan, an administrative approval process needed to be implemented by and between USEPA and HS. USEPA, HS, and SECOR have discussed alternatives regarding how to best resolve this issue. HS prepared and submitted a proposal to modify a portion of the text of the existing Administrative Order on Consent (AOC) in September. Notification that this proposed change to the AOC was not approved by USEPA was received in October. USEPA indicated that the work would likely need to be undertaken within the framework of a different enforcement mechanism (other than the existing AOC), such as another consent order or unilateral order. The other enforcement vehicle for the OSA work could be separate or be included as a portion of the overall remedial action for Area 9/10. HS had volunteered to perform these source removal activities. Therefore there are no timing issues for the completion of this work. As a result the work has been placed on hold. HS legal and management teams are considering the potential options.

The second area of focus is the area beneath the HS facility identified as a location of potential source material based on down-gradient groundwater monitoring results. The

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most likely location of the potential source material is associated with the former area of underground storage tanks (USTs) which were in the central portion of the plant south of the loading dock area. With access to the inside of the building unavailable, alternative means have been explored and horizontal drilling appears to be the most effective method of infrastructure installation.

A preliminary conceptual design for horizontal wells and pilot testing letter was submitted to USEPA and IEPA in May 2005. This letter provided an overview of the currently envisioned potential horizontal well and pilot testing treatment corridor. The plan outlined the optimal installation and treatment area without consideration of access constraints (both off-site and on the property).

Pilot testing of the horizontal wells will be a necessary part of the overall remedial design. The horizontal air sparge (AS) and soil vapor extraction (SVE) wells that are planned for pilot testing will likely become part of the final remedial design. This is consistent with a final remedial system design utilizing the Record of Decision (ROD) prescribed technologies for Area 9/10.

Off-site access for horizontal drilling will be required. Access to the property to the south of the plant (2525 11th Street) and beneath the Illinois Central Railroad spur line north of the plant will be necessary. Initial contact with ICR had been made related to the OSA activities. As this initiative is now on hold ICR access for the horizontal wells will be pursued.

To facilitate the preparation of the work plan for the AS and SVE horizontal well installation and pilot testing, the installation of a horizontal groundwater monitoring well beneath the facility has being proposed. Knowledge of the concentrations of various constituents of concern in groundwater will assist in the pilot test work plan development effort.

A brief horizontal groundwater monitoring well work plan is being prepared which outlines the scope of work to be undertaken. This brief plan will provide specific well installation, well development, and the baseline sampling to be performed. Prior to submittal of the horizontal monitoring well work plan, the new property owner to the south (2525 11th Street) and ICR will be contacted regarding access for the installation and future operation of the horizontal groundwater monitoring well and other pilot test wells. If successful, this effort will confirm the viability of the optimal locations previously identified. If access is denied, HS will request assistance from USEPA and/or IEPA in this matter. As well, if access conditions indicate that logistic modifications are required, alternate locations and alignments may be developed. The horizontal groundwater monitoring well work plan will be submitted after access from ICR is assured. The data from the horizontal groundwater monitoring well will be used as input for the development of the AS and SVE horizontal well pilot test infrastructure and test procedures.

The operation and monitoring of hydrocarbon recovery of LNAPL (JP-4) from the recovery systems in the south alley continues. Based on water level measurements taken from

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monitoring wells, there has been a noticeable drop in the elevation of the water table over the summer months. This lowering is attributable to the general lack of any significant rainfall during this period. Rockford is currently experiencing a 12 inch rainfall deficit for 2005 at this time. The lowering of the water table has produced conditions which have resulted in separate phase hydrocarbons to be observed in the recovery wells in the south alley in September. Levels identified have varied, but have generally been in the tenths of feet. The recovery systems are being monitored closely for the collection of the observed product. As part of the increased monitoring effort the system has been thoroughly cleaned and several maintenance items have been identified and resolved.

FUTURE PROJECT ISSUES/STATUS: *(activities, meetings, deliverables, etc.)*

Future project activities anticipated for October 2005 and beyond include:

- Continue to collect water levels from the groundwater monitoring network on a periodic basis.
- Engage ICR with regard to site access for the horizontal well installation. Initial contact had been made related to access for the OSA work plan activities.
- Continue to compile the Pre-Design Investigation data into the Data Summary Report. This report will include boring logs, figures, groundwater flow information, and all laboratory analyses undertaken as part of the Pre-Design Investigation.
- Monitoring and evaluation of LNAPL (JP-4) presence and recovery at the eastern end of the South Alley will continue.
- Engage the new property owner to the south and ICR regarding access for horizontal well installations, pilot test access, and longer term AS and SVE system operation.
- Continue to develop the brief scope of work/work plan for the installation, development, and baseline sampling of a horizontal groundwater monitoring well.

As a matter of note, off-site (non HS property) access has been and continues to be a potential area of concern. The current proposal (horizontal SVE and AS system) require the use and modifications to off-site properties. Although the nature of the impact to these properties will be designed to be as minimal as possible, there could be resistance from these off-site property owners for these efforts. HS is/will pursue access as is currently deemed necessary with these off-site entities. If it becomes apparent that progress towards access is not being made, access is being denied, or unreasonable access conditions are being imposed, HS will inform USEPA and seek assistance for reasonable resolution.

SAMPLE/TEST DATA SUBMITTALS:

No data submittals are included with this memorandum.

RD SCHEDULE UPDATE: *(attach updated schedule as necessary)*

As the activities associated with the Pre-Design Investigation portion of the Remedial Design (RD) continue, the overall schedule continues to be revised. A scope of work concerning the source mass reduction (by excavation) of near surface impacted soils in the

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OSA was submitted to the USEPA and IEPA in April 2005. Based on comments and responses, the (technical) work plan was approved with conditions in August. It was identified at that time that there was USEPA concern regarding their authority to administer these activities based on the present administrative order on consent. Proposed text modifications were prepared by HS and submitted to USEPA. USEPA determined in October that the OSA source mass reduction activity was not within the administrative capacity of the AOC. As a result the source mass reduction activity has been placed on hold. HS is presently evaluating the alternatives (separate order for the OSA work or at such time as Remedial Action is undertaken) with regard to the OSA work.

Access to potential source materials beneath the HS facility building will require the use of horizontal drilling. As mentioned previously, off-site access will be required for implementation of this technique. Access to off-site properties presents a potential to affect the schedule for implementation. HS is working on logistical issues associated with this drilling technology and will continue to work with the USEPA on keeping the RD efforts for Area 9/10 moving forward in a timely and reasonable fashion.

REALIZED/ANTICIPATED PROBLEM CONDITIONS:

None.

PERSONNEL CHANGES:

None.